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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,016	03/26/2001	Celso Luis Mello	60,469-033; OT-4776	2223

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EXAMINER

VAN DOREN, BETH

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,016

Applicant(s)

MELLO ET AL.

Examiner

Beth Van Doren

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a non-final, first office action on the merits. Claims 1-20 are pending.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of (1) whether the invention is within the technological arts and (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract that do not apply, involve, use, or advance the technological arts fail to promote the “progress of science and the useful arts” (i.e. the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to be statutory, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, claim 1 recites a system that includes a planning module, an information module, a communication module, and a portable interface. However, since modules and interfaces are software per se and since the claimed system includes no hardware elements that expressly implement the modules and interface of claim, it is respectfully submitted that claim 1 is software per se and therefore directed to non-

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statutory subject matter. Claims 2-12 are dependent on claim 1 and therefore contain the same deficiencies. As for claim 13, claim 13 recites automatically planning, automatically providing, and facilitating remote communication without any specific use of technology to specifically perform the steps. Therefore, the terms automatically and facilitating are nominal recitations of technology. For example, "facilitating remote communication" means to make possible a remote communication, but not specifically and actively cause a communication to occur. Therefore, it is respectfully submitted that claim 13 is directed towards non-statutory subject matter. Claims 14-20 are dependent on claim 13 and therefore contain the same deficiencies.

Although the claimed invention produces a useful, concrete, and tangible result, since the claimed invention is not within the technological arts, as explained above, claims 1-20 are deemed to be directed towards non-statutory subject matter.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The preamble of claim 1 sets for the claim as a system claim. However, the body of claim 1 comprises a planning module, an information module, a communication module, and a portable interface. Modules and interfaces, without the hardware elements on which they are implement, are considered software per se, and therefore the body of claim 1 does not match the system set forth in the preamble.

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6. Claims 2-12 are dependent on claim 1 and therefore contain the same deficiencies.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesaint et al. (U.S. 6,578,005).

8. As per claim 1, Lesaint et al. discloses a system for automatically and remotely assisting a mechanic, comprising:

a planning module that automatically plans out a recommended list of tasks for the mechanic to complete during a workday (See at least figures 1 and 4, column 7, lines 1-30 and 48-55, column 9, lines 15-44, column 26, lines 55-67, column 27, lines 1-30, which discuss a planning module that automatically plans out the tasks for the mechanic to complete during the day);

an information module that automatically provides the mechanic information regarding items associated with the recommended routine (See at least figure 4 and column 7, lines 15-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, wherein the mechanic is provided instructions for the maintenance/task routine);

a communication module that facilitates communication between the mechanic and a base location (See at least figures 1 and 4, column 6, lines 50-65, column 7, lines 1-

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30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses a communication module); and

a portable mechanic interface that is operative to allow the mechanic to remotely access information from the planning, information and communication modules, respectively (See at least figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, wherein the mechanic has a portable interface that operatively allows the mechanic to remotely access information).

However, while Lesaint et al. discloses a field force mechanic for performing tasks and the system for said mechanic that includes the elements recited above, Lesaint et al. does not expressly disclose that the mechanic is an elevator mechanic.

Lesaint et al. discloses a system that allocates tasks to field mechanics using remote communications. Examiner points out that the term "elevator" only appears in the preamble of the claim and has no functional effect on the body of the claim (i.e. the mechanic being an elevator mechanic is the intended field use and the elements in the body of claim are structurally the same regardless of the industry in which they are applied). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the system of Lesaint et al. to assign mechanics to tasks concerning elevators in order to more efficiently allocate a plurality of field mechanics to a plurality of tasks in an industry with dynamic conditions. See column 1, lines 9-20, column 7, lines 20-30, column 8, lines 45-67, and column 9, lines 20-45, which discuss the benefits of a dynamic system and Lesaint et al. applicable to multiple industries.

9. As per claim 2, Lesaint et al. teaches a tracking device that automatically provides information regarding a location of the mechanic and wherein the planning module uses

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the location information (See at least figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein the system automatically provides status and location information to the planning module, so the schedule can continually be optimized).

10. As per claim 3, Lesaint et al. teaches wherein the tracking device is associated with the portable interface (See at least figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein the status and location functionality is associated with the portable interface).

11. As per claim 4, Lesaint et al. discloses a status module that maintains information regarding a status of a task, the status module periodically updating the status of a task responsive to information from the tracking device (See at least figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein status information is obtained and periodically updated).

12. As per claim 5, Lesaint et al. discloses that the planning module provides information to the mechanic regarding a plurality of tasks to be performed, a recommended order in which to perform the tasks and information regarding a location where each task is to be performed (See at least figure 4, column 7, lines 1-30 and 48-55, column 9, lines 15-44, column 11, lines 20-30, column 12, lines 50-55, column 26, lines 55-67, column 27, wherein the planning modules creates a schedule for a mechanic including a prioritized and sequenced tasks. The mechanic is provided information on the tasks in a recommended order, wherein the order considers location of the tasks).

13. As per claim 6, Lesaint et al. discloses using location information regarding the tasks to determine the recommended order (See at least column 7, lines 48-67, column 9,

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lines 15-45, column 11, lines 20-30 and 55-65, column 12, lines 1-10, column 13, lines 15-20 and 38-65, and column 28, lines 30-65, which all discuss ordering and assigning tasks using location data).

14. As per claim 7, Lesaint et al. discloses wherein the planning module is operative to provide a prioritized order of tasks to be completed during the workday (See at least figure 4, column 7, lines 48-55, column 9, lines 15-44, column 10, lines 5-25, column 12, lines 30-65, column 26, lines 55-67, column 27, lines 1-30, which discloses planning a prioritized tour for a mechanic).

15. As per claim 8, Lesaint et al. teaches wherein the planning module periodically updates the prioritized order of tasks (See figure 4, column 7, lines 48-55, column 9, lines 15-44, column 26, lines 55-67, column 27, lines 1-30, wherein the order is updated).

16. As per claim 9, Lesaint et al. teaches wherein the information module provides at least one type of information to the mechanic, the type of information being at least building information regarding a location of a system (See at least figures 1 and 4, column 7, lines 15-30 and 47-60, column 9, lines 20-44, column 11, lines 20-30, column 31, lines 25-40, wherein the information modules provides the user information and instructions regarding the next task to complete). However, Lesaint et al. does not expressly disclose that the task involves an elevator system.

Lesaint et al. discloses monitoring systems, such as telecommunication systems, and allocating tasks regarding the systems to field mechanics via remote communications. Examiner points out that the term “elevator”, as recited in claim 9, has no functional significance on the providing of information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide

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location information for an elevator system in the teachings of Lesaint et al. in order to more efficiently assign mechanics to tasks concerning elevators since the allocation of mechanics change in a dynamic manner. See column 1, lines 9-20 and column 7, lines 20-30, which discuss the application of Lesaint et al. in multiple industries.

17. As per claim 10, Lesaint et al. teaches wherein the communication module facilitates the mechanic providing a base location with information regarding a status of a task that the mechanic is undertaking (See at least figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30 and 45-55, column 24, lines 62-67, column 25, lines 1-35, column 26, lines 1-20, wherein status information is communicated to the base location).

18. As per claim 11, Lesaint et al. discloses wherein the communication module facilitates the mechanic providing information to the base location regarding the completion of a task (See at least figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein completion is communicated).

19. As per claim 12, Lesaint et al. teaches that the communication module allows the mechanic to provide information regarding the completion of a task (See at least figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein completion is communicated). However, Lesaint et al. does not expressly disclose automatically generating billing information.

Lesaint et al. discloses a system that assigns mechanics to appointments for completing tasks for customers, these tasks including repairs, maintenance, field service, etc. It was old and well known in the art at the time of the invention that these are all fee

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for service industries, requiring a client to pay for the services completed by a service provider, such as a field technician. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to automatically bill clients for the tasks performed by field technicians after the task is reported as completed in order to generate bills in a more timely manner by programming the system of Lesaint et al. to generate the bill at the time service is rendered, thus allowing for quicker compensation.

20. As per claim 13, Lesaint et al. discloses a method of automatically and remotely assisting a mechanic, comprising the steps of:

(A) automatically planning out a recommended list of tasks for the mechanic to complete during a workday (See at least figure 4, column 7, lines 48-55, column 9, lines 15-44, column 10, lines 5-25, column 12, lines 30-65, column 26, lines 55-67, column 27, lines 1-30, which discloses planning a prioritized tour for a mechanic);

(B) automatically providing the mechanic information regarding items associated with the recommended routine responsive to an inquiry from the mechanic (See at least figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses providing the mechanic with information regarding the routine to be performed); and

(C) facilitating remote communication between the mechanic and a base location whereby the mechanic is able to access information regarding the recommended list of step (A) and the information of step (B) (See at least figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses a communication module that facilitates remote communication).

However, while Lesaint et al. discloses a field force mechanic for performing tasks and the system for said mechanic that includes the elements recited above, Lesaint et al. does not expressly disclose that the mechanic is an elevator mechanic.

Lesaint et al. discloses a system that allocates tasks to field mechanics using remote communications. Examiner points out that the term “elevator” only appears in the preamble of the claim and has no functional effect on the body of the claim (i.e. the mechanic being an elevator mechanic is the intended field use and the elements in the body of claim are structurally the same regardless of the industry in which they are applied). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the system of Lesaint et al. to assign mechanics to tasks concerning elevators in order to more efficiently allocate a plurality of field mechanics to a plurality of tasks in an industry with dynamic conditions. See column 1, lines 9-20, column 7, lines 20-30, column 8, lines 45-67, and column 9, lines 20-45, which discuss the benefits of a dynamic system and Lesaint et al. applicable to multiple industries.

21. Claims 14, 15, and 17-20 recite equivalent limitations to claims 2, 4, and 9-12 respectively, and are therefore rejected using the same art and rationale as applied above.

22. Claim 16 recites equivalent limitations to claims 7 and 8 and is therefore rejected using the same art and rationale as applied above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sisley et al. (U.S. 5,943,652) teaches scheduling field technicians by considering skills of the technician, location of the technician, priority, requirements of the tasks, etc.

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Welch (U.S. 2002/0113877) discloses remote monitoring and maintenance of equipment (elevators) and remote access to documents aiding the repair and maintenance.

Honma et al. (U.S. 5,343,387) teaches a system for creating a maintenance work schedule.

Cornett et al. (U.S. 5,216,612) discloses a computer integrated maintenance system that generates maintenance orders for maintenance tasks.

Spira et al. (U.S. 2002/0035495) teaches technical services and maintenance needed in a facility and planning the needed service and maintenance.

Moore et al. (U.S. 4,697,243) discloses methods for servicing an elevator.

OpenUPTIME (www.metrix-inc.com) discloses managing field service by remotely interacting with field engineers.

Metrix (www.metrix-inc.com) discloses scheduling and communicating remotely with field technicians.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (703) 305-3882. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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February 15, 2005



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